Stopping conflict minerals with the OECD Guidance for responsible mineral supply chains: Status Quo in Europe

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The authors stands by the integrity of their findings
and the validity of the methodology employed in this
research study. The report reflects their views.

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Contents

Executive Summary OECD Due Diligence Guidance

The purpose of the OECD Due Diligence Guidance for Responsible Supply Chain of Minerals from Conflict-Affected and High-Risk Areas (hereafter OECD Guidance) is to provide comprehensive recommendations for companies so that they thoroughly respect human rights when sourcing minerals or metals.[1] In other words, its ambition is to enable companies to no longer finance conflicts in the country of origin of minerals and metals, no matter how distant in the supply chain they are from the origin of the mineral. Conflict-affected and high-risk areas are determined based on the presence of armed conflict, widespread violence or other risks of harm to people.

The OECD Guidance is based on the supply chain due diligence process. This process is defined as an ongoing proactive and reactive process that allows companies to make reasonable as well as thorough efforts in addressing risks with respect to sourcing of tin, tantalum, tungsten, their ores and mineral derivatives, and gold (hereafter 3TG).

THE GUIDANCE COMPRISES OF THE FOLLOWING FIVE PROCESS STEPS:

1. Establishment of strong company management systems
2. Identification and assessment of supply chain risk
3. Design and implementation of a strategy to respond to risk
4. Carrying out independent third-party audits of supply chain due diligence
5. Reporting on supply chain due diligence[2]

The OECD Guidance is different, but complementary to current legislation such as the Section 1502 of the U.S. Dodd Frank Wall Street Reform and Consumer Protection Act (hereafter Dodd Frank legislation). The Dodd Frank legislation requires U.S. listed firms to disclose whether they use "conflict minerals" from the Democratic Republic of Congo and adjacent countries in their products. If firms source these conflict minerals from that area, there is the need to publically issue a "conflict minerals report" that describes measures implemented to ensure that the sourcing practices do not support any conflict.

The differences of the OECD Guidance and Dodd Frank legislation are the following.[3] While the Dodd Frank legislation is legally enforceable and only addresses U.S. stock listed companies and metals sourced from the Democratic Republic of Congo and adjacent areas, the OECD Guidance is a voluntary guidance that is applicable to all firms – no matter the firm size, the location of its headquarter, or whether it is publicly-listed or not – and all conflict affected and high-risk areas. Furthermore, the OECD Guidance pursues rather a process-based approach providing detailed guidance on how firms can achieve conflict-free supply chains based on the five process steps listed above. On the other hand, the Dodd Frank legislation requires firms to label products if they are "conflict free" or not, but does not provide any detailed guidance on how to comply. In this respect, the OECD Guidance helps firms by providing detailed recommendations on how they can generate the necessary information they need to disclose under the Dodd Frank legislation.

[1] Details about the OECD Guidance can be found here: http://www.oecd.org/investment/mne/mining.htm [2] See http://www.oecd.org/daf/inv/mne/GuidanceEdition2.pdf
[3] See http://www.oecd.org/daf/inv/mne/48889405.pdf for a comparison of OECD Guidance and Dodd Frank legislation

Key findings

CONFUSION WITH US DODD FRANK 'CONFLICT MINERALS' PROVISION

The OECD Guidance is widely-known among the firms interviewed in this study. However, it is widely confused with the Dodd–Frank legislation (Section 1502 of the Dodd–Frank Wall Street Reform and Consumer Protection Act).

THE OECD GUIDANCE IS NOT WIDELY IMPLEMENTED IN FULL, AND IMPLEMENTATION VARIES BETWEEN INDUSTRIES

The scope of changes in firm practices that is required to fully implement the recommendations contained in the OECD Guidance varies across firms. Specifically, firms further downstream of supply chains and smelters/refiners implement due diligence standards to a higher level when compared to those at the mid-level of supply chains since the latter face less stakeholder scrutiny. However, all firms are still required to adapt their due diligence practices to fully meet the standards set out in the OECD Guidance.

U.S. LEGISLATION HAS HIGHER IMPACT ON EUROPEAN FIRMS THAN THE OECD GUIDANCE

14% of the interviewed firms directly fall under the Dodd Frank legislation due to an additional listing in U.S. stock market. Additionally, around 35% interviewed firms indicated that they are confronted with Dodd Frank compliance requests by their U.S. customers. Both groups achieve significantly higher levels of supply chain Due Diligence.

THE LEVEL OF DUE DILIGENCE IMPLEMENTATION INCREASES WITH FIRM SIZE

While larger firms are, on average, more aware of the topic due to stakeholder scrutiny or reporting requirements, small firms are often uncertain about costs and benefits of the implementation of OECD Due Diligence. Large firms have to a lesser extent to complement their existing supply chain risk management methodologies in order to meet the OECD Due Diligence standards than SMEs. SMEs, more than often, fail to have any form of formal supply chain risk management or sustainable supply chain management in place, thereby making it more costly for them to pursue all recommendations of the OECD Guidance.

FIRMS DO NOT YET FULLY IMPLEMENT THE OECD DUE DILIGENCE GUIDANCE

We see that there is a significant room for improvement across all the five steps of the OECD Due Diligence Guidance as firms across industries to a large extent do not consistently implement Due Diligence practices. Only a very small number of firms – mostly those that were influential in the development of the OECD Due Diligence Guidance – claim to achieve high levels of implementation.

THE EXTRA COSTS FOR FULL OECD DUE DILIGENCE IMPLEMENTATION ARE FOR MOST FIRMS RATHER SMALL

Independent of firm size, maturity in supply chain management, industry, and supply chain tier step, almost all firms in the sample indicate that the costs for full OECD Due Diligence implementation are relatively low when compared to company sales. Overall, firms estimate an average of approximately 270,000 EUR as investment cost in the first year, followed by recurring annual cost expenditures of 535,000 EUR for full implementation. Also, these costs can be further reduced significantly through industry and supply chain collaboration.

INVESTMENT IN HUMAN RESOURCES AND AUDITING CONSTITUTE THE MAJOR COST BLOCKS OF OECD DUE DILIGENCE IMPLEMENTATION

The study results clearly show that human resources matter the most in implementing the OECD Guidance. However, the auditing costs also seem to play a major role. The investments into new computer systems or professional service fees seem to play a minor role instead.

COMPANIES PREDICT A WIDE RANGE OF BENEFITS, MANY OF WHICH ARE NOT QUANTIFIABLE

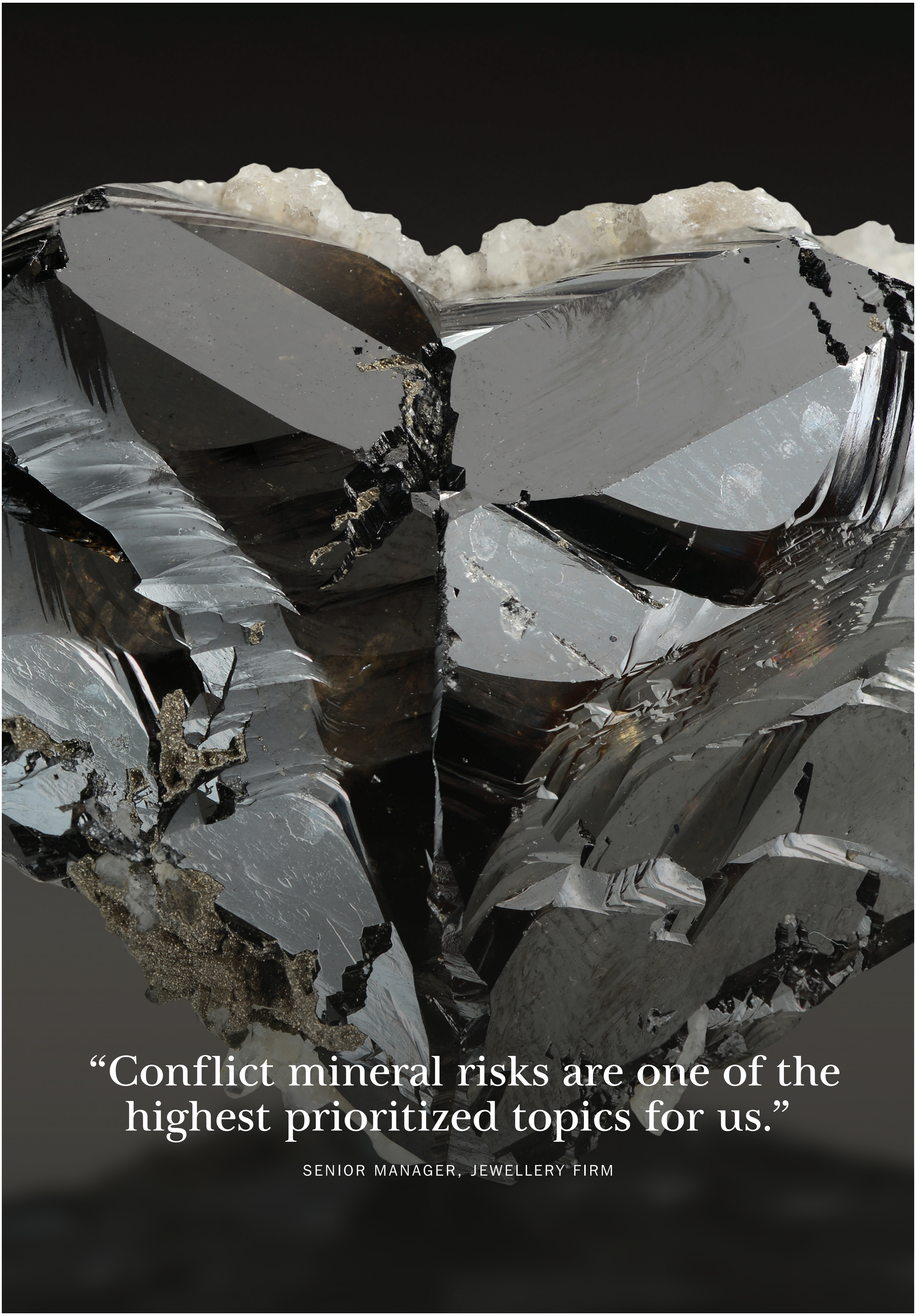
Overall, 82.8% of respondents believe that fulfilling the standards set out by the OECD Guidance results in significant benefits, even though most of them cannot be quantified. Firms typically believe in positive reputation effects. Supply chain rationalization including securing future supply also plays a dominant role for several firms.

A WIDE RANGE OF ENABLERS COULD SUPPORT OECD DUE DILIGENCE IMPLEMENTATION

The major enablers that were pointed out by the interviewees can be grouped in to four main categories: (1) solution-related, (2) industry collaboration, (3) external support, and (4) internal management. The most important enablers center around certified smelter and refinery lists, joint third-party audits as well as reliable supply chain information. Industry collaboration and external support also play a critical role. However, internal implementation (such as training, cross-functional collaboration) plays only a minor role for most firms.

FIRMS SEE NUMEROUS HURDLES FOR IMPLEMENTATION OF THE OECD DUE DILIGENCE

Most important hurdles exist with respect to the mechanisms of the Due Diligence itself. Firms lack reliable info, certifications, and/or audits. In the case of larger firms, supply chain characteristics like high complexity and supply chain dynamics seem to introduce major difficulties. Smaller firms often raise the lack of internal resources as a key hurdle. Interestingly, the second most hurdle seems to be the OECD Guidance itself; respondents felt that the guidance is not only too complicated, but is also vague in some instances.



“Conflict mineral risks are one of the highest prioritized topics for us.”

SENIOR MANAGER, JEWELLERY FIRM

The purpose of the study

The purpose of this study is to thoroughly investigate both the costs that are required and the benefits that arise out of the implementation of the OECD Guidance for strongly affected industries in Europe. This study provides reliable data for informed discussion amongst managers, politicians, activists etc. about the OECD Guidance.

This study investigates the status quo of implementation in the respondent firms based on firm perception. It also investigates success factors as well as hurdles of OECD Due Diligence implementation, thereby ultimately leading to the following research questions:

- What changes in company systems and processes are required to implement the standards laid out by the OECD Guidance?
- What are the investments and recurring costs, if any, in terms of staff time, professional services fees, systems and technology for making the necessary changes outlined by the OECD Guidance?
- What benefits are expected from OECD Guidance implementation? How are these benefits valued?
- What are the biggest challenges of implementing the OECD Guidance?
- What specific tools, service approaches, organizations are seen as most necessary for Due Diligence implementation?
- What type of role does industry collaboration, associations, NGOs and government play?

SAMPLE & STUDY METHODOLOGY

The study is based on in-depth interviews with senior executives from 29 EU-based companies. The companies interviewed range in size from 5 million EUR to 75 billion EUR in annual revenues. Overall, the interviewed companies represent an aggregated sales volume of 347 billion Euros. The companies are headquartered in eight Western and Central European countries, with strongest representation from Germany, UK and France (see Figure 1). SMEs as well as large firms are both represented in the sample (12 SMEs and 17 large firms) (see Figure 2).

The study addresses five major industries which are impacted by conflict mineral issues through 6 interviews from the Automotive, Aerospace & Defense, Electronics and General Manufacturing industry, 4 interviews from the Jewellery industry, and 2 interviews from smelting and refining companies.

The study does not claim to be representative for all firms and industries across Europe. Rather it provides a research-based snapshot of typical exposed companies, thereby facilitating the understanding of the problems and opportunities associated with the implementation of OECD Guidance.

Our respondents are senior managers who are mainly working in the procurement or sustainability departments. However, our sample is also complemented by conflict mineral specialists, CEOs, and risk managers, thereby showcasing the variety of expertise that is needed to thoroughly tackle 3TG conflicts. Interviews lasted between 30 minutes and one hour, and took place in February/March 2014. Firms were approached by telephone and email and all interviews were recorded. The respondents were assured of their anonymity.

With respect to methodology, we are only interested in the additional costs that firms might incur to fully implement the requirements set out by the OECD Guidance. Therefore costs that firms already face due to their current supply chain practices are not included. Similar to earlier studies (Green Research 2013)[4], we also focus on the major cost blocks of staff, training, professional service fees, computer systems & technology, legal advice, reports as well as audits in our study. We also split these cost blocks into initial investments that would be incurred during the first year of implementation, and recurring expenditure that would be realized in subsequent years.

[4] http://www.sec.gov/comments/s7-40-10/s74010-470.pdf

THE SAMPLE IN A SNAPSHOT

FIGURE 1: COUNTRY DISTRIBUTION OF SAMPLE FIRMS

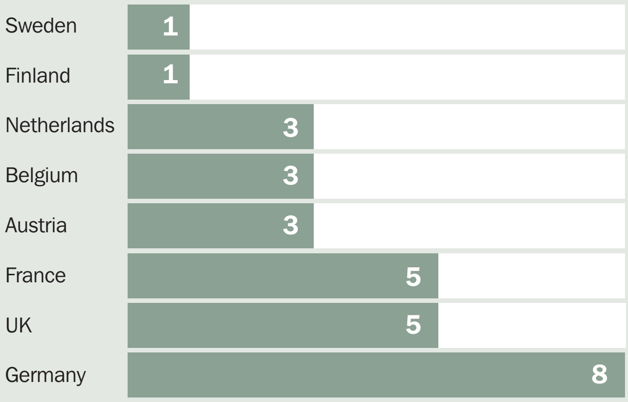


FIGURE 3: SALES DISTRIBUTION OF SAMPLE FIRMS

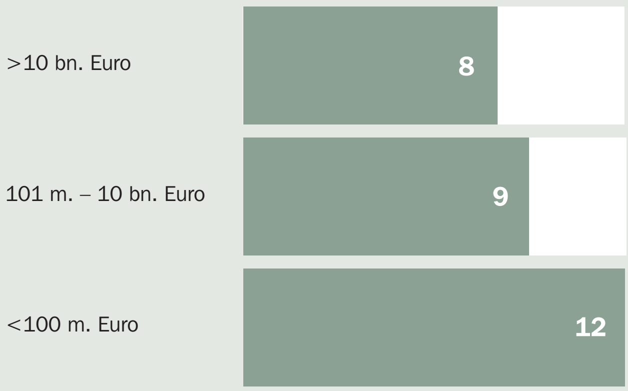


FIGURE 3: INDUSTRY DISTRIBUTION OF SAMPLE FIRMS

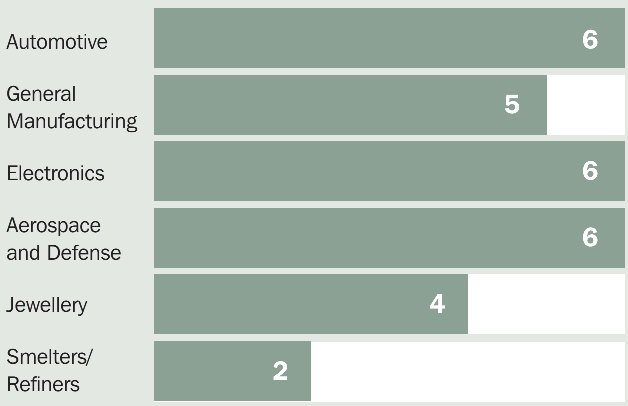


FIGURE 4. SUPPLY CHAIN STAGES OF SAMPLE FIRMS

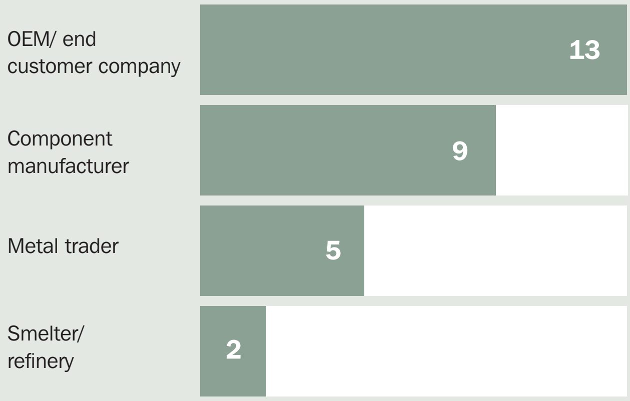


FIGURE 5. NUMBER OF FIRMS COMPRISING METALS OF THIS SORT IN THEIR PRODUCTS

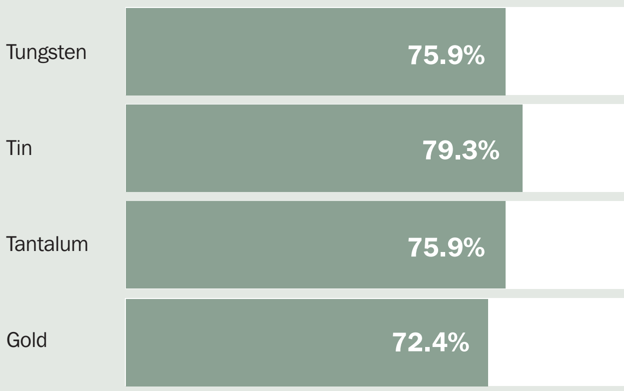
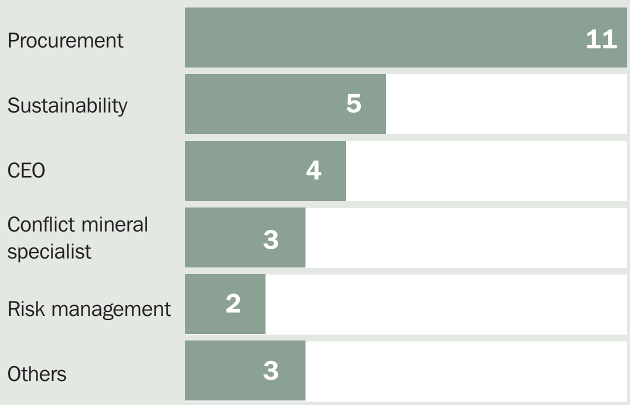


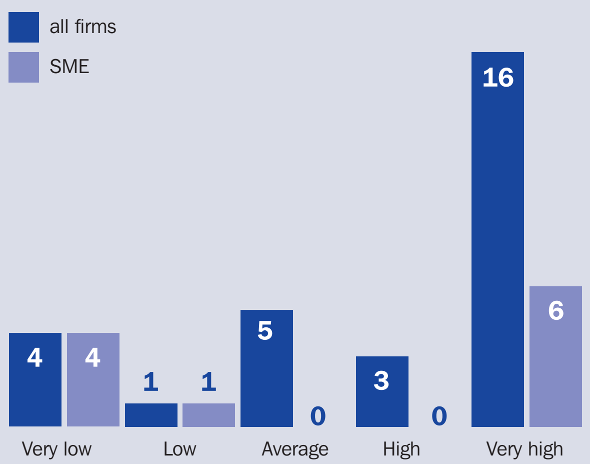
FIGURE 6: RESPONDENT JOB PROFILE OF SAMPLE FIRMS



Status of Implementation of OECD Guidance

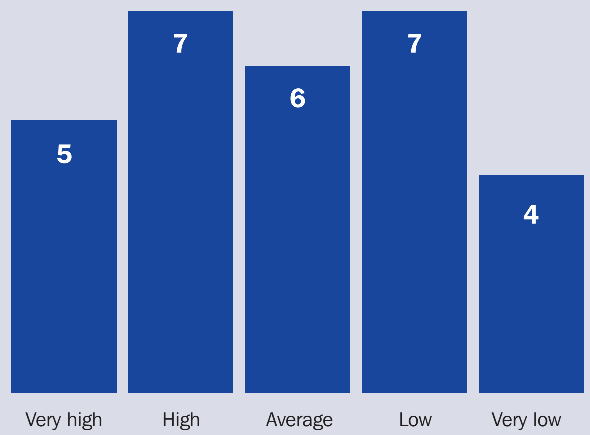
Overall, we see that the 3TG supply chains are important to the interviewed firms. 26 out of the 29 respondents found the upstream mineral supply chains – referring to metals – to be of significant importance for their firm's financial success. The awareness of, and the experience with, the topic of conflict minerals were relatively high for the responding firms, thereby underscoring the appropriateness of the sample. However, the level of awareness regarding the conflict nature of 3TG sourcing is mixed across firms, though relatively high on an average as can be seen in Figure 7. Interestingly, SMEs seem to claim a low level of awareness of the conflict nature of 3GT.

FIGURE 7: LEVEL OF AWARENESS OF 3TG SOURCING RISKS WITH RESPECT TO CONFLICTS



Overall, the level of OECD Guidance Due Diligence implementation is ambiguous. Based on company perception, we find an almost equal spread of responses. 12 out of 29 firms feel that they have to thoroughly change their supply chain practices in order to fully implement the Due Diligence as outlined by the OECD Guidance. On the other hand, 11 firms believe that their current supply chain processes are, to a large extent, in accordance with the guidance. Figure 8 reports the perceived level of necessary changes for the firms' supply chain practices that need to be addressed in order to fully implement OECD due diligence. Only four firms believe that they have fully implemented the processes suggested by the OECD Guidance with the exception of some minor adjustments. In the following paragraphs, we shed further light on how the level of Due Diligence implementation varies using contingency variables such as firm size, supply chain position, industry, and Dodd Frank compliance.

FIGURE 8. LEVEL OF NECESSARY CHANGES FOR FULL IMPLEMENTATION OF THE OECD GUIDANCE DUE DILIGENCE



FIRM SIZE

In general, smaller firms seem to be less in accordance with the OECD Guidance. Out of the firms that had to alter their due diligence practices, six were SMEs, four were large firms and only two were very large firms. This finding can be explained not only by the less formalized routines in small firms, but also due to the fact that end-consumers hold smaller firms less responsible for their upstream supply chain[5]. For example, a Belgian automotive supplier stated that even though they care about the metal origin, they can't afford to design a complex system to manage it. Alternatively, as put forth by a manager of an SME Aerospace & Defense component manufacturer from UK: "Sustainability does not make any change to our business success... Of course, we do what we can, but OECD compliance is not required by law."

[5] Wilhelm, M.M., Blome, C., Bhakoo, V., & Paulraj, A. (2015). Sustainability in multi-tier supply chains: Understanding the double agency role of the first-tier supplier. Journal of Operations Management

SUPPLY CHAIN POSITION

Based on our observations, the supply chain position also seems to play a significant role for the level of Due Diligence implementation. Out of the 12 firms that would have to adjust their Due Diligence practices significantly, five were component manufacturers (representing more than 60% of component manufacturers in our sample) and five were OEMs (however only representing only 35% the OEMs in our sample). However, this does not mean that component manufacturers do not pursue supply chain due diligence at all. But they seem to be at a lower level when compared to the remainder of the supply chain members. Interestingly, upstream companies like smelters and refiners achieve slightly higher levels of due diligence implementation even though they are further away from the final customer.

INDUSTRY

Across all industries, Jewellery firms seem to achieve the highest level of Due Diligence implementation. Multiple arguments can be brought forward for this observation: (1) Their supply chains are less complex than other in other industries in our sample, (2) their products are less complex, and (3) these firms have been more exposed to conflict concerns due to the issue of blood diamonds in the past; accordingly, they have higher levels of awareness given this past experience. One manager of an Austrian Jewellery company explains that reputation is so important that 3TG risks are “one of the highest prioritized topics for us”. Aerospace & Defense, Automotive and Electronics firms seem to implement OECD Guidance on similar levels; however, they are on a lower level when compared to the Jewellery companies. Only General Manufacturing firms consistently report slightly higher implementation levels of Due Diligence among the remaining sectors. This finding is also interesting as the Electronics industry has been named as a best practice example in our sample as well (e.g. by an Austrian component manufacturer in the manufacturing industry); however, this only seems to be apply for larger firms within that industry.

IMPACT OF DODD FRANK LEGISLATION

Dodd Frank legislation strongly impacts the level of OECD Guidance implementation. Specifically, those firms that are also listed at the U.S. stock exchange seem to achieve higher levels of Due Diligence implementation since they are directly impacted by the Dodd Frank legislation. Also, a similar positive effect can be observed for firms that have their major customers within the US. Several firms explicitly mentioned that their activities with respect to 3TG are triggered by these customer requests. Only a small number of firms (e.g. a French Electronics OEM or a refinery from Belgium) indicated that their interest in the topic dates long before the time of implementation of the Dodd Frank legislation. Finally, the firms that are not impacted by Dodd Frank (directly or indirectly) seem to achieve lower level of implementation, thus requiring significant changes to their existing processes.

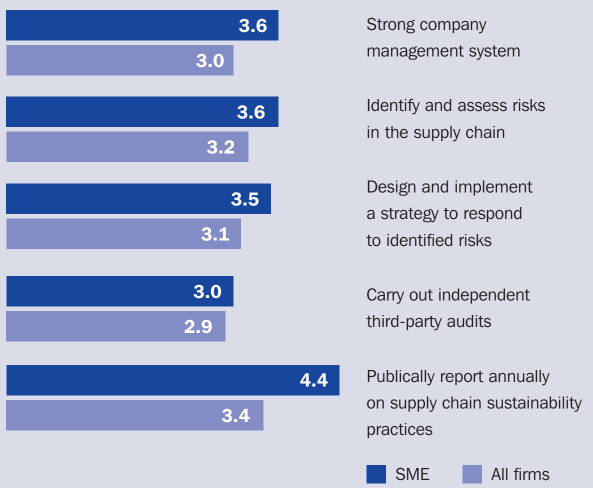
Figure 9 summarizes the different levels of necessary changes to the firms’ supply chain practices so as to fully implement the OECD Due Diligence.

FIGURE 9. LEVEL OF NECESSARY CHANGES FOR FULL OECD GUIDANCE IMPLEMENTATION

STATUS OF DUE DILIGENCE PROCESS STEPS IMPLEMENTATION

The interviewees also provided us with in-depth data on the changes required to implement within each of the five steps of the OECD Guidance. Overall, we found that the level of necessary changes are relatively high across all five dimensions of the process framework of the OECD Guidance, with the highest values for step 5 – public reporting.

FIGURE 10: LEVEL OF NECESSARY CHANGES FOR FULL OECD GUIDANCE IMPLEMENTATION



As Figure 10 provides only average values of firms, the results suppress the fact that some firms have higher need for changes in the front steps (1 and 2), while other firms need changes in the later steps of the process (4 and 5) in order to fully implement the OECD Guidance. For example, a large German Aerospace & Defense OEM that identifies refineries and smelters for the used metals and additionally pursues joint spot checks of these firms to assess their Due Diligence practices seems to lack the adoption of policy, company management system or risk mitigation plans to ensure that appropriate action is implemented. Another example of inconsistent Due Diligence implementation is an Austrian component manufacturer in General Manufacturing that has responsible management for conflict minerals, specific conflict mineral supply chain policy, and contract clauses; however, implementation of a dedicated risk mitigation plan and audits are almost not existent in this case. While it is understandable that firms have to start off with certain process steps of the OECD Guidance, it is important that they are reminded of the fact that only a full implementation of the five process steps could result in the intended effect that is targeted by the OECD Guidance.

Based on our study, it is apparent that room for improvement exists across all five steps of the OECD Guidance. Specifically, we see that companies do not implement initiatives that require high level of effort as well as high-level of knowledge (e.g., initiatives such as supplier development). This is quite typical for most supply chain risk management activities; for example, while supplier codes of conduct are widely implemented, substantial measures like supplier development initiatives are less-often pursued. However, it is important to note that the high-effort initiatives have the potential to significantly change the situation of 3TG related risks in the mid-term.

With respect to SMEs, our results suggest that they have lower levels of Due Diligence implementation across all the five steps of the OECD Guidance. Among other things, this could be explained by the lack of resources as well as formal systems in these firms. When it comes to the annual reporting on supply chain sustainability practices, several SME firms feel that they need not have to change as the current law does not require them to issue such reports.

In the following sections, we display the levels at which the practices named in the OECD Guidance are implemented across the interviewed firms. However, these results are based on the perception of interviewees and do not necessarily indicate that the implemented practices fulfills the requirements set out by the standards of the OECD Guidance.

STRONG MANAGEMENT SYSTEM – STEP 1 OF THE OECD GUIDANCE

Firms are pragmatic in the implementation of step 1 of the OECD Guidance. First of all, firms will make sure that customers and auditors receive the required 3TG information. Next, responsible managers for 3TG and supplier code of conducts are implemented in firms. All of these initiatives are initiatives that are typically pursued in order to implement general sustainability supply chain management practices. However, more demanding initiatives such as supplier development initiatives that change the actual sourcing behavior of the focal firm are less often pursued. Of course, when compared to supplier code of conducts or contract clauses, these initiatives not only require significant investments into capabilities, but are also more time-consuming and complex.

FIGURE 11: LEVEL OF IMPLEMENTATION OF OECD DUE DILIGENCE: PROCESS STEP 1

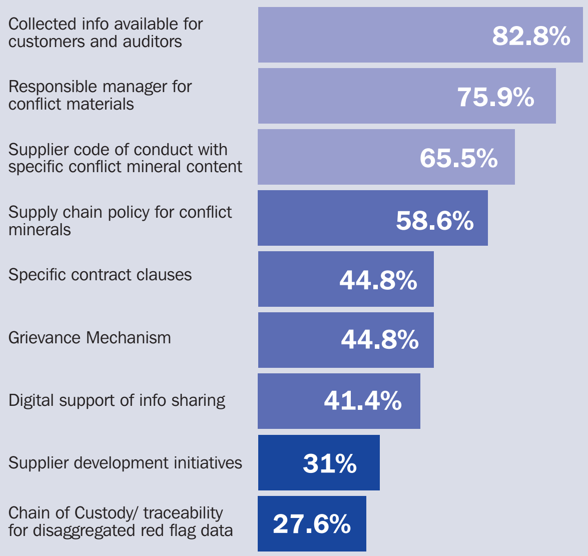
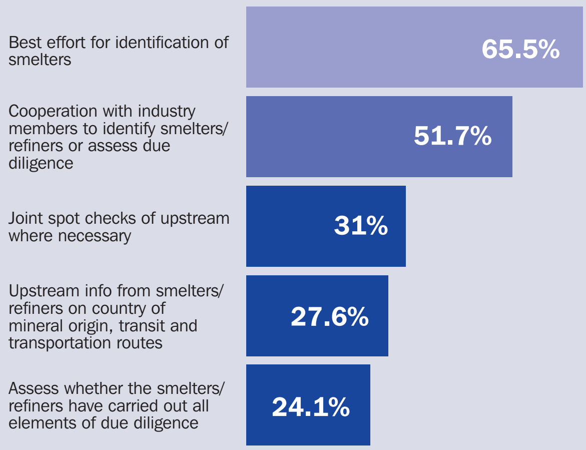


FIGURE 12. LEVEL OF IMPLEMENTATION OF OECD DUE DILLIGENCE: PROCESS STEP 2



IDENTIFICATION AND ASSESSMENT OF RISKS – STEP 2 OF THE OECD GUIDANCE

65.5% firms claim that they identify the smelters and refineries in their supply chain to the best effort. However, some of the same firms also admitted that it is unclear to them what a best effort that is requested by the OECD Guidance precisely requires in terms of activity level. Again, initiatives that are far more complex and require more effort are pursued on a much lower level. For example, only a limited number of firms pursue joint spot checks or receive info on country of mineral origin, transit and transportation information. Only 24.1% of firms indicate that they have carried out checks whether their smelters/and refineries have carried out the necessary due diligence steps.

RESPONSE STRATEGIES – STEP 3 OF THE OECD GUIDANCE

Most firms indicated that senior management is informed about due diligence findings as well as about improvements of 3TG risks management. However, it seemed that in some firms, specifically in those firms in which the awareness for 3TG risks was low, this reporting would happen only when something serious happens and not on a regular basis. Therefore, due to the patchy implementation of the Due Diligence process steps, it can be safely assumed that the actual reporting to senior management falls significantly short, even though firms indicate that they actually report to senior managers.

Similar to the general supply chain risk management implementation, it is also interesting to observe that firms do often not implement the risk mitigation strategies and plans that they develop as well as do not follow up on their initial risk identification and risk assessment. Only less than half of the firms seem to actually implement the risk mitigation strategies that they have developed.

Moreover, even though it is an important dimension of the OECD Guidance, firms seem to be reluctant in jointly tracking and monitoring performance in coordination with authorities and non-governmental organizations. This is clearly explained by the fact that most firms also express that they are not proficient in the implementation of coherent practices.

INDEPENDENT THIRD-PARTY AUDITS – STEP 4 OF THE OECD GUIDANCE

Supply chain collaboration on third-party audits and carrying out independent third-party audits is only pursued by approximately a third of the interviewed companies. As indicated later in the report, the cost of such audits is significant and firms do not seem to leverage the use of supply chain collaboration fully. It is important to point out that independent third-party audits are central to the OECD Guidance as only these can assure that firms are actually implementing what they report in terms of due diligence. Greenwashing can otherwise not be accurately detected.

FIGURE 13. LEVEL OF IMPLEMENTATION OF OECD DUE DILLIGENCE: PROCESS STEP 3

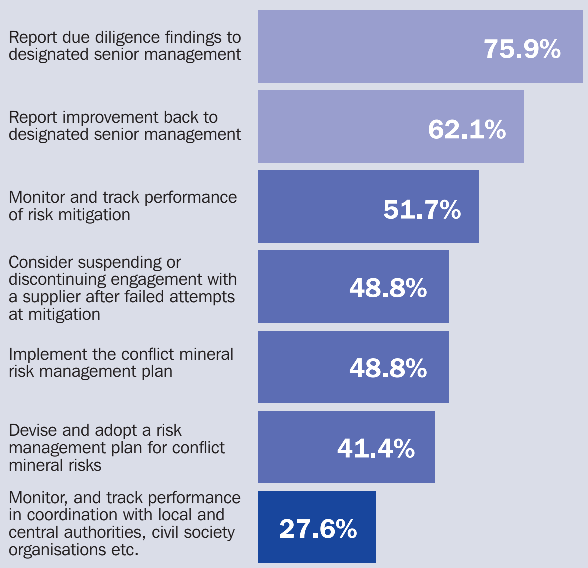
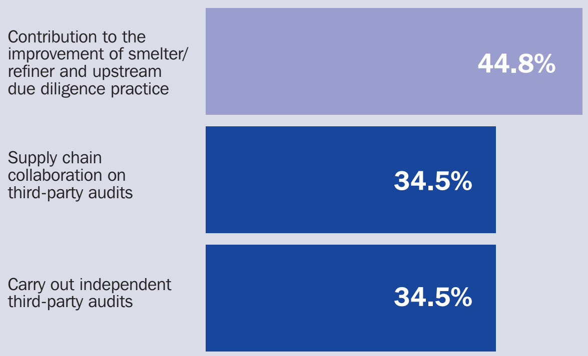


FIGURE 14: LEVEL OF IMPLEMENTATION OF OECD DUE DILLIGENCE: PROCESS STEP 4

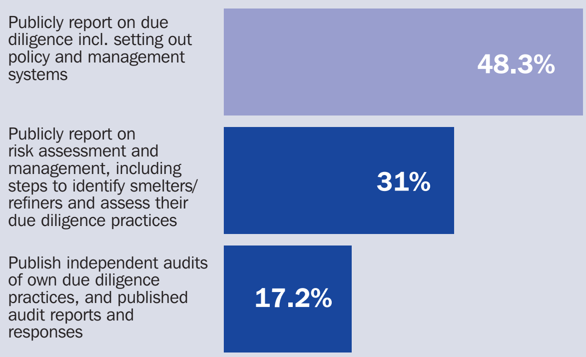


PUBLIC REPORTING – STEP 5 OF THE OECD GUIDANCE

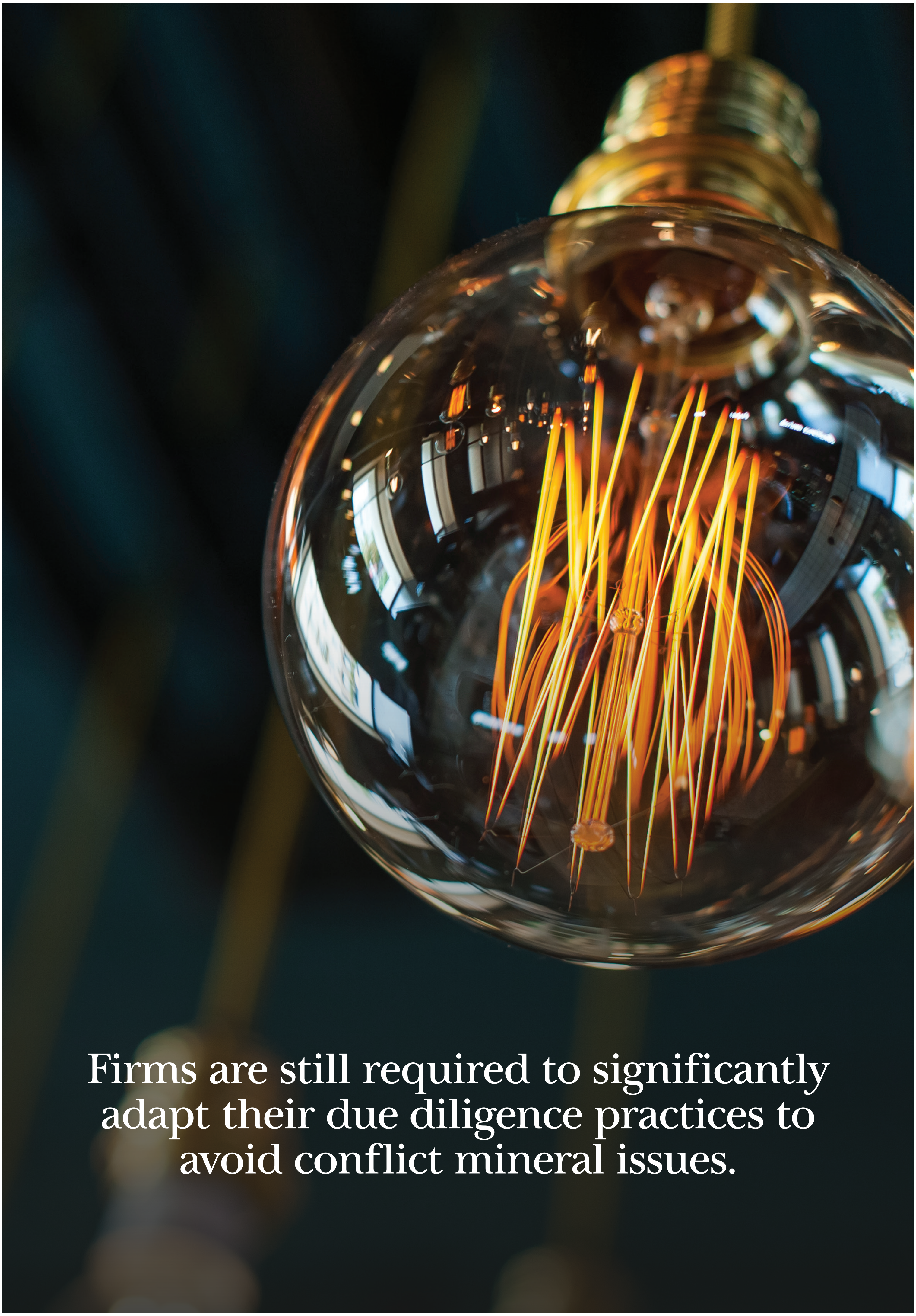
Finally, we were surprised to find that numerous firms indicated that they need to adjust their public reporting practices more strongly so as to abide by the standards set out in Step 5 by the OECD Guidance. This is a very atypical finding since firms are often found to rather green- or blue-wash their performance with respect to sustainability reporting (i.e., they advertise performance levels that are not backed up in practice).[6] As mentioned earlier, part of this finding can be explained by the fact that firms are not required to report these details. In the case of larger firms, it seems that they rather refrain from publishing data regarding projects that are still in the making. Some of the firms that we contacted actually refused participation in this survey due to the fact that they were still uncertain about their position with respect to conflict minerals.

With respect to reporting content, firms seem to disclose their policy and management systems instead of the actual practices they implement. Furthermore, only 17.2% of firms publish independent audit results of their own due diligence practices, including reports that are a central requirement of the OECD Guidance.

FIGURE 15. LEVEL OF IMPLEMENTATION OF OECD DUE DILLIGENCE: PROCESS STEP 5



[6] Delmas, M. A., & Burbano, V. C. (2011). The Drivers of Greenwashing. California Management Review, 54(1)


Firms are still required to significantly adapt their due diligence practices to avoid conflict mineral issues.

Cost Estimates for Implementation of the OECD Guidance

Most of the firms were able to provide detailed cost estimates for the necessary changes in the company systems and processes to implement all five steps outlined by the OECD Guidance fully. Unfortunately, five firms (17.2%) could not provide these estimates as they were unsure – even after explanation and re-contacting – what changes would be required in their operations in order to fully implement the OECD Guidance. Since these firms were rather small in size and less exposed to sustainability topics in general, our results underline the notion that smaller firms are less informed and less experienced with respect to OECD Guidance. Nevertheless, we were able to collect accurate cost estimates across our sample. For an overview, please refer to Table 1.

Overall, the respondents estimated that they would incur approximately 270,000 EUR as investments in the first year, followed by 535,000 EUR of subsequent annual investments for each firm in order to fulfill the OECD requirements fully. Since these costs varied strongly among individual firms, we shed further light on this by investigating the impact of firm size, supply chain position, and OECD Guidance implementation level.

TABLE 1: COST ESTIMATES FOR IMPLEMENTATION OF THE OECD GUIDANCE IN EURO

		All firms	Firm size		Supply chain position			Industry					Implementation level	
COSTS		All firms	SME	Large firms	Focal firms	Component manufacturers	Metal traders, refiners, smelters	Aerospace & defence	Automotive	Electronics	General manufacturing	Jewellery	Mature	Immature
Staff & Training	Initial invest	55k	8k	81k	85k	88k	4k	208k	18k	21k	53k	11k	92k	33k
	Annual expenditure	302k	18k	306k	373k	67k	51k	112k	264k	188k	61k	33k	340k	59k
Professional service fees	Initial invest	49k	0	49k	82k	3k	0k	42k	0k	10k	20k	0k	81k	1k
	Annual expenditure	12k	1k	16k	18k	0k	9k	0k	17k	0k	0k	23k	23k	5k
Computer systems & technology	Initial invest	32k	1k	22k	37k	0k	1k	3k	0k	41k	0k	0k	16k	18k
	Annual expenditure	11k	0k	24k	28k	4k	8k	44k	2k	10k	1k	25k	29k	9k
Legal advice	Initial invest	18k	10k	15k	25k	9k	0k	11k	0k	12k	0k	0k	24k	5k
	Annual expenditure	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k
Reports	Initial invest	1k	0k	1k	2k	0k	0k	0k	0k	3k	0k	0k	0k	2k
	Annual expenditure	126k	16k	139k	225k	11k	14k	16k	3k	405k	24k	22k	225k	17k
Others	Initial invest	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k
	Annual expenditure	2k	2k	1k	0k	1k	2k	0k	2k	0k	3k	0k	1k	0k
Sums (without auditing costs)	**Initial invest**	**155k**	**18k**	**168k**	**231k**	**99k**	**5k**	**265k**	**18k**	**87k**	**73k**	**11k**	**213k**	**59k**
	Annual expenditure	**452k**	**37k**	**485k**	**644k**	**83k**	**84k**	**172k**	**288k**	**603k**	**88k**	**103k**	**619k**	**90k**
Auditing	Initial invest	116k	13k	102k	167k	15k	3k	334k	6k	12k	3k	1k	58k	91k
	Annual expenditure	84k	20k	80k	131k	13k	10k	250k	19k	12k	3k	18k	53k	70k
Sum (with auditing costs	**Initial invest**	**270k**	**32k**	**270k**	**397k**	**114k**	**8k**	**599k**	**24k**	**99k**	**77k**	**12k**	**271k**	**150k**
	Annual expenditure	**536k**	**57k**	**565k**	**775k**	**97k**	**94k**	**423k**	**307k**	**615k**	**92k**	**121k**	**672k**	**160k**

FIRM SIZE:

SMEs, on an average, estimate significantly lower cost than the larger firms. Specifically, SMEs estimate less than 32,000 EUR for initial investment and approximately 57,000 EUR as annual expenditure towards full OECD Guidance implementation. Larger firms face costs of approx. 270,000 EUR and 565,000 EUR, respectively.

SUPPLY CHAIN POSITION:

The costs for implementation diminish along the supply chain. OEMs are confronted with relatively higher levels of costs (~400,000 EUR invest and ~775.000 EUR recurring costs), whereas refiners and smelters face lowest costs (~8,000 EUR and ~94,000 EUR respectively). Component manufacturers take a middle position for initial cost investments as well as annual expenditures. Interestingly, recurring annual expenditures of implementation for smelters, refiners and traders are similar to those of component manufacturers.

INDUSTRY:

As for industry, the Aerospace & Defense firms expect the highest initial investment, whereas Automotive, Electronics, General Manufacturing and Jewellery firms expect all investments below 100,000 EUR with Jewellery and Automotive ranking the lowest (~12,000 EUR and ~24,000 EUR respectively). The annual cost expenditures range from 91,529 EUR (General Manufacturing) to 615,439 EUR in the Electronics Industry. Apart from the advanced level of practices in the Jewellery industry, the differences in cost levels can also be explained by the relatively lower complexity of Jewellery products and the related supply chains in comparison to the other industries of our sample.

OECD GUIDANCE IMPLEMENTATION LEVEL:

Surprisingly, firms with high levels of OECD Due Diligence implementation stated that they do not predict lower costs than firms with low implementation levels. This can be attributed to the fact that these firms are larger and we focus mainly on absolute amounts of costs and that these firms can make more informed decisions about implementation costs as they are already more familiar with Due Diligence implementation.

Overall, the initial investments for OECD Guidance implementation do not constitute significant investments in any investigated industry. This is also true for the annual spending for OECD Guidance implementation in subsequent years. All firms expect much lower initial investments than the annual expenditure they would incur in order to pursue their continuous Due Diligence practices. Accordingly, firms seem to put the biggest cost burden on the recurring expenditure and not on the initial one-time investment.

COMPARING OUR RESULTS TO OTHER STUDIES

When compared to similar studies, our results provide some interesting insights. For example, the study that was funded by the Directorate-General Trade of the European Commission in 2013 investigating the costs and benefits of Due Diligence implementation is the most similar study to ours.[7] This study was based only on iPoint members who use electronic systems and joint standards that might strongly reduce costs. Furthermore, the standard set out in the survey was not as comprehensive as the standards set by the OECD Guidance. Nevertheless, it is the closest to our study and provides some interesting insights.

Respondents of the European Commission study reported significantly lower levels of investment and recurring costs for due diligence implementation. Specifically, this study found an average estimate of 13,500 EUR for the initial investment (74% with costs under 5,000 EUR) and a yearly ongoing expenditure of in average 2,700 EUR. The average initial investment in our study is approx. 20 times higher while the annual expenditure is approx. 200 times higher when compared to the 2013 European Commission study. None of the firms interviewed by us reported annual costs of less than 3,000 EUR (even though iPoint members were interviewed), which was the cost reported by more than 60% of the firms in the European Commission study. In any case, the expected costs in our study are still not significantly large investments for firms with respect to their annual sales, making OECD Guidance still feasible for most firms.

Unlike the European Commission study, other comparable studies that are available focus on the costs of the Dodd Frank regulation that has a different scope. Nevertheless, a comparison of our study to these Dodd Frank legislation-based studies informs the reader about different levels of implementation costs.

The National Association of Manufacturers (NAM) issued an estimate that the one-time compliance costs for companies meeting requirements of Dodd Frank legislation would range from $1.2 million to over $25 million per company. The recurring annual costs are estimated to be around $75,000 to $150,000 per year in order to achieve that compliance (without the issuance of annual reports). When compared to our results, these figures seem to be rather high as documented by other existing studies (e.g. Green Research 2013[8]).

The only study that finds costs similar in size to our results is the study conducted by the Tulane University. However, this study focuses on the compliance costs of due diligence systems that enable compliance with the Dodd Frank legislation. Accordingly, the results cannot be compared directly to our study due to the different scope of the due diligence. But according to this study, the one-time costs of implementing a due diligence system would range from about $208,500 to over $1 million per firm as well as recurring annual expenditures from about $25,000 to $100,000.[9] Interestingly, the initial investment into the Dodd-Frank conflict mineral program (as indicated by the Tulane study) seems to be significantly higher than the OECD Guidance, despite the narrower regional scope. This observation is in line with the logic that under the OECD Guidance, due diligence is not a major burden for just a single firm; instead, due diligence should rather be pursued collectively in supply chains.

Interestingly, the annual recurring costs found in our study are significantly higher than in the Tulane study. This

[7] http://trade.ec.europa.eu/doclib/docs/2014/march/tradoc_152230.pdf [8] http://www.sec.gov/comments/s7-40-10/s74010-470.pdf
[9] Bayer, Chris. A Critical Analysis of the SEC and NAM Economic Impact Models and the Proposal of a 3rd Model. Rep. Tulane University, 17 Oct. 2011.

difference is mainly attributable to the difference in the need for full-time staff to run the system. While the Tulane study indicates that personnel is not needed once the due diligence system is implemented, the firms participating in our survey felt that the continued involvement of internal teams is necessary to the continued maintenance of the conflict-free supply chains. In other words, it is an effort that needs constant attention and investment.

COST BREAKDOWN

When breaking down the due diligence costs, two different pictures for the cases of initial investments and recurring costs evolve.

When calculating the relative expenditure of each firm in our sample, the major cost blocks to implement the OECD Due Diligence are the initial auditing and auditing setup costs (42.8%), followed by staff & training costs (20,2%), professional service fees (e.g., for consultants helping in setting up the project) (18.2%), and computer systems & technology costs (11.7%). All remaining costs are rather negligible. As for the recurring costs of due diligence, the major cost block stems from staff & training (56.3%), drafting and publishing reports (23.4%) and auditing costs (15.7%). All remaining costs are rather negligible.

Computer systems & technology investments play a very minor role as investment. This is also supported by the report of Green Research (2013) that came to a similar conclusion when considering the implementation of supply chain practices in order to be compliant with the the Dodd Frank legislation. The respondents in our sample indicated that additional hardware was not necessary; some firms indicated that specific software solutions would be necessary for them. Several firms indicated that they would use the iPoint system leading mainly to annual licensing fees. Respondents from the automotive industry also felt that an additional tool for the International Material Data System (IMDS) would be needed (1,000 EUR to 10,000 EUR). While some firms are inclined to buy a small software tool for 2,000 EUR to 5,000 EUR, others indicated that they would use existing solutions, or develop small in-house software, or would rely on MS Excel. No firms expected significant investment in this category.

THE BIGGEST COST BLOCKS FOR DUE DILIGENCE IMPLEMENTATION

Staff and training costs: The biggest block of expenditures comprises staff and training costs. Most firms foresee that OECD Guidance needs significant investment into staff in order to set the program up. Additionally, they also anticipate that continuous staff support is necessary to carry out the five different process steps of Due Diligence. Once set-up, these costs could be reduced by automated systems to a certain degree, but most firms had the feeling that they need internal experts that could tackle the wide array of 3TG risks. The results clearly show that human resources matter the most in order to put the OECD Guidance system into place.

AUDITING COSTS:

The second biggest block of expenditures are the costs incurred in auditing. Some of the firms declared that they would probably not incur any costs for auditing as external organizations such as EICC or the ITRI Tin Supply Chain initiative (iTSCi) would pursue the upstream audits. Alternatively, other firms indicated that they would have to audit, for example, smelters and refineries on their own. For example, a German OEM from the Aerospace & Defense industry expects that it would have to spend around 1 Mio. EUR for external auditors as they would not pursue the audits on their own. Some firms could not declare separate costs for audits as they are subsumed in the duties of their internal staff that are responsible for managing conflict minerals. Finally, one French Automotive OEM insisted that it would not spend any money and pursue audits as they are not legally required to do so. Overall, the results indicate that firms are not only, to a larger extent, still puzzled as of who is responsible for the audits of smelters/refineries, but also seek a collaborative, potentially industry-level solution for easing the process and sharing the auditing costs. Specifically SMEs signaled that it would be impossible for them to pursue these audits on their own. Accordingly, several of them could not even estimate how much the costs of such an audit would be.

COSTS FOR REPORTS:

Further recurring costs emerge for the annual Due Diligence report as several firms did not issue such a report yet. Several firms indicated that they could include the Due Diligence results in the sustainability or annual reports. Most of the interviewed firms expect that they would need a full-time employee to compile extra due diligence reports, if needed. Very large firms foresee that they even might rather need a team of three experts to compile such a specific report, making it substantial recurring costs.

OTHER COSTS:

Several of the larger firms had the feeling that they would need professional service fees, mainly as part of the initial investment. However, even these projects seemed to be rather small-scale (max. EUR 500,000). In the case of SMEs, these costs were non-existent or negligible.

FIGURE 16: STRUCTURE OF ESTIMATED INVESTMENT COSTS FOR FULL OECD GUIDANCE DUE DILIGENCE

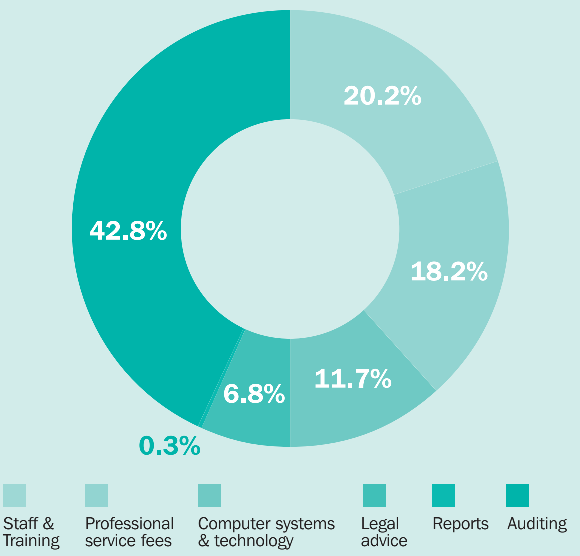
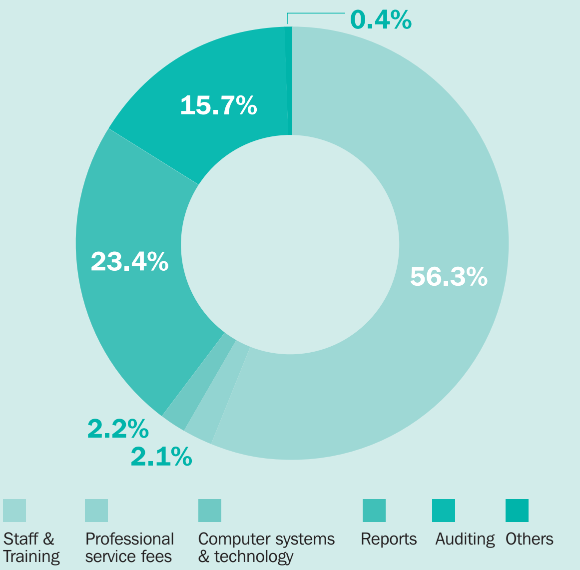


FIGURE 17: STRUCTURE OF ESTIMATED RECURRING COSTS FOR FULL OECD GUIDANCE DUE DILIGENCE



MAJOR COST DRIVERS AND COST CRUNCHERS

The above section described the major cost blocks. However, the major cost driver is the actual number of suppliers that needs to be audited as this directly influences the additional staff time that is needed. Some of the respondents framed it differently and instead highlighted the effort that is needed to collect the data necessary for ensuring OECD Guidance due diligence as their major cost driver (though this is also driven by the number of suppliers that needs to be audited and also usually results in extra staff time). In general, it can be safely assumed that firms with a more complex supply base that is prone to 3TG risks is faced with a considerably higher level of costs challenge to implement the OECD Guidance. Therefore, supply chain rationalization measures can also help to reduce the costs of Due Diligence implementation.

The firms participating in our study consider two main levers for reducing the effort across firms for audits: (1) industry collaboration in Due Diligence and (2) reliable upstream due diligence data provided by the direct supplier of the firm (n-1 supplier). For example, a manager of a large German Automotive component manufacturer raised the point that the EICC initiative that facilitates joint, standardized audits within the Electronics industry should be copied in other industries, thereby leading to significant cost reductions. Overall, we could also observe significantly lower auditing costs in the Electronics and General Manufacturing industry that had leveraged the joint EICC – GeSI Initiative. Half of our respondents were convinced that the joint pursuit of audits would reduce half the costs that they would otherwise incur due to the implementation of the full OECD Due Diligence. Only three firms believed that they would not incur substantial extra benefits; this was mainly attributable to the fact that these firms felt that they had already leveraged the cost saving potential of these initiatives.

Similarly, many firms raised the point that they would be able to reduce their costs substantially if their direct suppliers could provide sufficiently good data regarding the conflict-free nature of the minerals. Even though respondents seemed to be more uncertain in regards to the cost saving potential of this opportunity in comparison to that of industry collaboration, they believed that it could result in significant savings.

Thus, even though the costs for the OECD Due Diligence are relatively low, they could be further reduced significantly through industry-wide collaborative effort that is similar to the Electronics industry.

TABLE 2: ESTIMATED COST SAVINGS THROUGH INDUSTRY COLLABORATION INITIATIVES DATA IN %

Cost reduction potential through industry collaboration	Number of firms	Percentage
0%	3	10.3%
1%-25%	10	34.5%
25%-50%	7	24.1%
50-75%	8	27.6%
75%-100%	0	0.0%
unknown	1	3.4%

TABLE 3: ESTIMATED COST SAVINGS THROUGH RELIABLE UPSTREAM DUE DILIGENCE INFORMATION IN %

Cost reduction through n-1 reliable data	Number of firms	Percentage
0%	6	20.7%
1%-25%	6	20.7%
25%-50%	50%	24.1%
50%-75%	2	6.9%
75%-100%	0	0.0%
unknown	8	27.6%

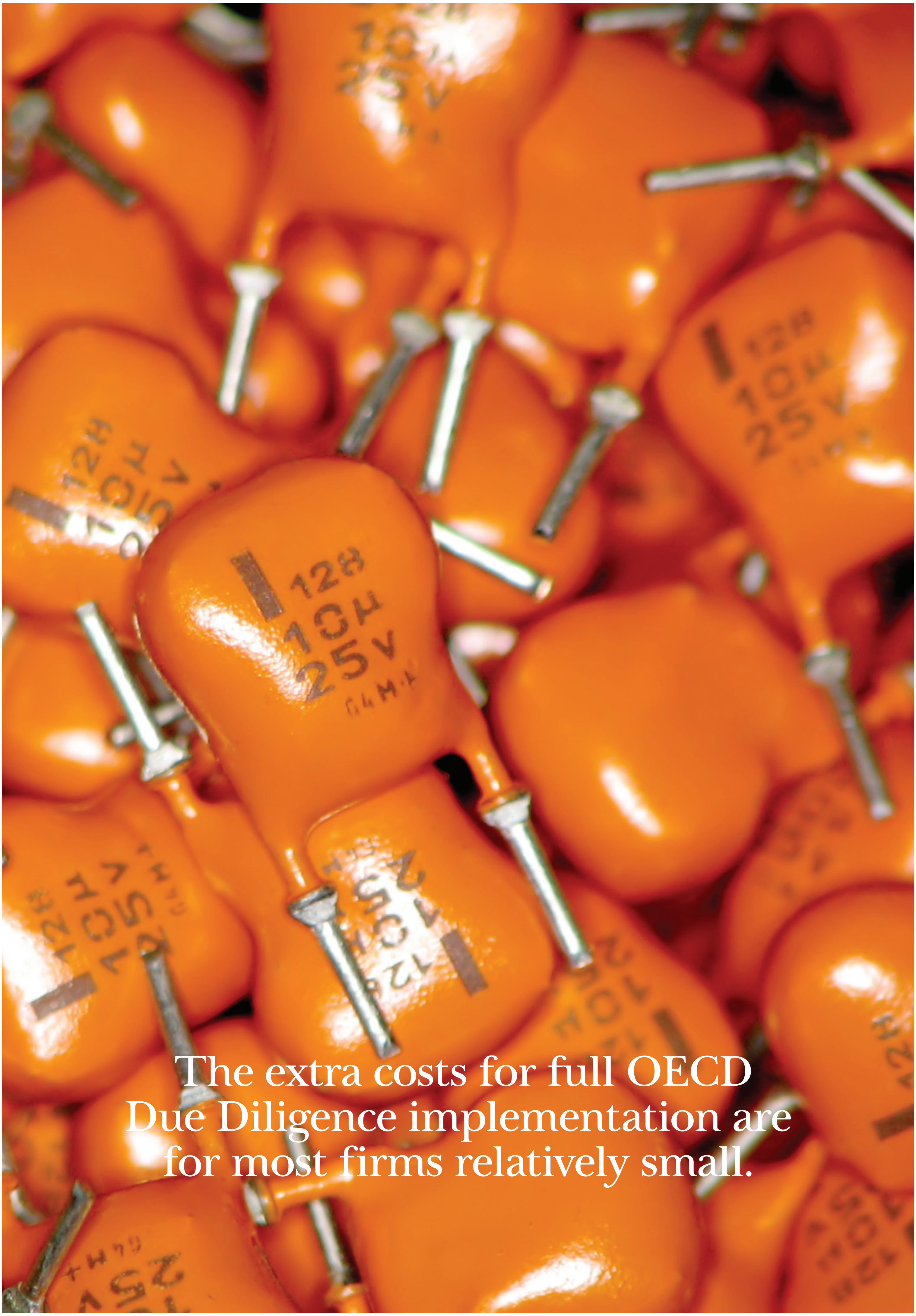
COST OF DUE DILIGENCE IMPLEMENTATION / SALES RATIO

Even though respondents often indicated that the costs for full OECD Due Diligence implementation are too high, we found that the sum of all indicated costs for due diligence implementation are rather low when compared to the annual revenues most firms. When comparing the aggregate annual implementation costs and the aggregate sales volume of our sample, the average costs incurred by OECD due diligence implementation would represent only 0.0002% of total annual sales. A further fine-grained analysis shows that "only" 2 out of 29 firms in our study expect that their annual expenditure for Due Diligence would represent approx. 0.5% to 1% of their sales volume. Both these firms are SMEs (a metal trader and a smelter). Also the range of 0.1% to 0.5% expenditure is mainly represented by smaller firms. Of course, when considering the direct impact on profit, this might be a substantial figure for these firms. However, these were also the firms which had indicated that (1) they will have to incur significant cost levels for carrying out audits on their own and (2) they were not yet leveraging the joint pursuit of audits.

All other firms foresee lower expenditures than 0.1% with respect to the cost/ sales ratio as indicated in Table 4. This small percentage indicates that the expenditures for OECD Supply Chain Due Diligence is, in most cases, rather low. However, even though the costs in the cases of SMEs are not very high, they could still be prohibitive, thereby making the use of consorted efforts necessary.

TABLE 4: ESTIMATED COST/ SALES RATIO FOR FULL OECD GUIDANCE DUE DILIGENCE IMPLEMENTATION BASED ON ANNUAL COSTS

Annual OECD guidance complicance cost / sales ratio	Number of firms	Percentage
<0.01%	13	44.8%
0.01%-0.1%	5	17.2%
0.1%-0.5%	4	13.8%
0.5%-1%	2	6.9%
unknown	5	17.2%



The extra costs for full OECD Due Diligence implementation are for most firms relatively small.

Benefit Estimates for Due Diligence Implementation

Overall, 82.8% of respondents believe that the implementation of the OECD Guidance Due Diligence could result in significant benefits. Surprisingly, 63.6% SMEs also believed that the OECD Guidance Due Diligence would result in benefits, though only a small proportion of SMEs had actually implemented Due Diligence practices to a relevant extent.

As illustrated in figure 15, a majority of these firms said that they expected the benefits materialize around customer relationships (highlighted in light blue). Most of the firms expect that they could (1) improve their firm's reputation, (2) decrease their reputation risks pertaining to conflict mineral supply chain issues with respect to conflict minerals, and (3) improve customer satisfaction.

A manager of a component manufacturer in the Austrian General Manufacturing industry stated that "customer satisfaction would increase as the company would now live up to the customer expectations [as customers expect their suppliers to be compliant]". Two smaller sized metal trading firms highlighted the reduction of potential reputation risks as they might lose a significant number of their customers if they are not following the set out standards. A small German metal trader agrees: "incompliance would destroy 99% of the company's business. Big US and European customers wouldn't buy anymore from us if we aren't compliant."

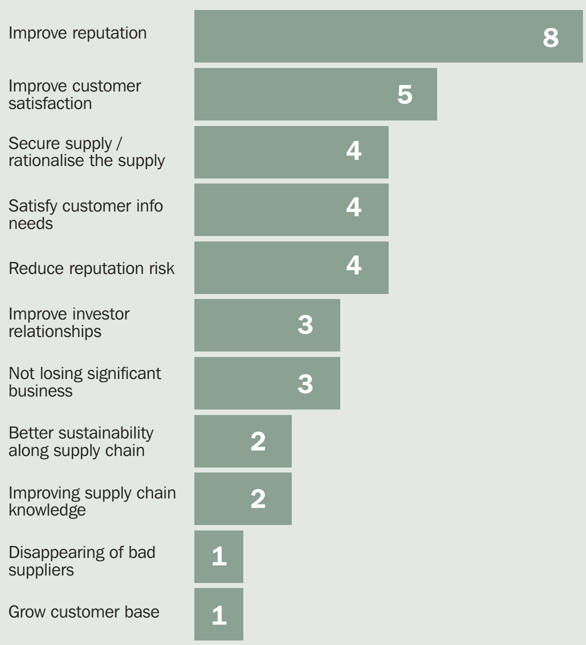
Also, various improvements around supply chain rationalization are expected by the companies. Specifically, improved information about upstream supply chains, earlier identification of risks, better securing of supply in the upstream supply chain, and the easier identification of suppliers that use 3TG from conflict areas are just some of the improvements that could be expected.

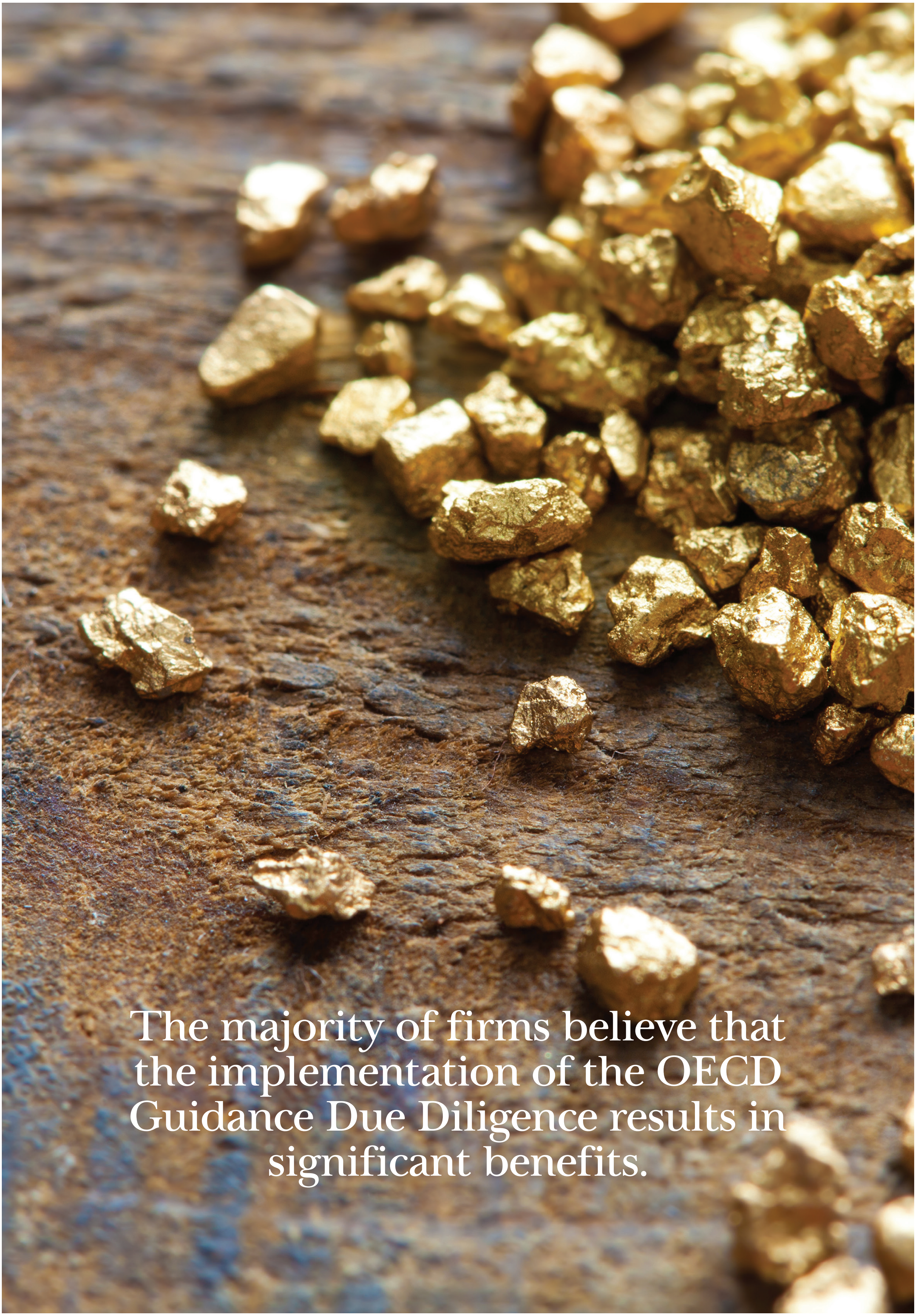
A smaller portion of firms anticipated some benefits with respect to investor relationships, and, even to the point that OECD Guidance Due Diligence might actually attract future investors.

However, a smaller number of firms – specifically SMEs – were not convinced that the OECD Guidance would result in any benefit. As one manager of UK Jewellery retailer puts it: "I don't see any benefits based on the initiative. Cost savings are not connected to the topic and consumers absolutely don't ask for it." A SME metal trader from Belgium shares his ambiguity: "Initially, I thought that I'd value these initiatives as well as compliance very highly as I assumed that it would open up a new market for me. But I eventually realized that this is only true for tantalum, in the case of tungsten, which is our major business, it did not bring anything." One respondent clearly mentioned that supply chain wide implementation of the OECD Guidance standards would only result in additional costs, and will definitely not lead to supply chain rationalization.

In summary, we see that most firms expect to benefit from Due Diligence implementation. The variety of expected benefits is quite high and seems to cover commercial as well as supply chain aspects. The interest of doing something just for the good to society was not pointed out by the respondents. The same is true for benefits such as "employee satisfaction" or "the creation of innovations" though these dimensions are regularly documented as important in extant literature. Most firms see an improvement in their reputation and image, followed by improvements in their supply chains and related risk mitigation strategies.

FIGURE 18: EXPECTED BENEFITS OF OECD GUIDANCE





The majority of firms believe that the implementation of the OECD Guidance Due Diligence results in significant benefits.

Hurdles and Enablers for Due Diligence Implementation

As for major hurdles and enablers, we received a diverse set of answers. The patterns identified in this study provide important insights into the hurdles and enablers of Due Diligence implementation. Our study identified four major dimensions of hurdles: (1) solutions-related hurdles, (2) supply chain specificities, (3) internal resources, and (4) the OECD Guidance per se. The four groups are highlighted using different shades of colour in Figure 16.

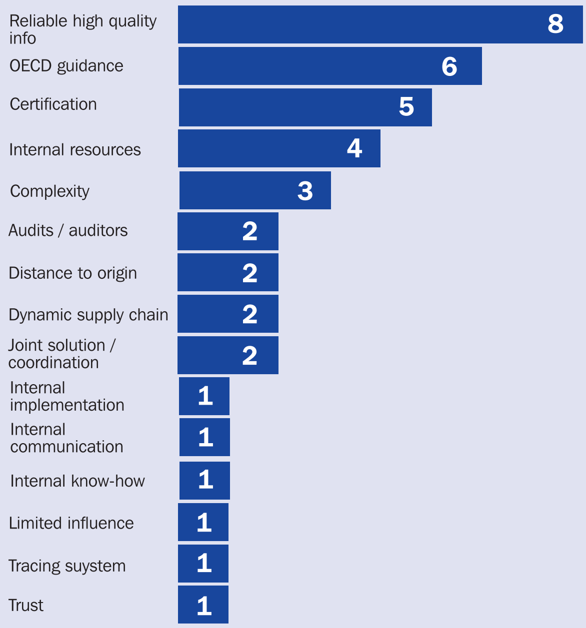
As per solution-related hurdles (the major hurdle), most firms indicated that the biggest challenge would be to receive reliable data regarding the conflict-free nature of the minerals. The absence of standardized certification schemes also seems to complicate the issue further. Some firms also raised the point that appropriate external auditors are unavailable and that coordinated audits with other supply chain members are yet to be implemented. These hurdles clearly show that the experience of the firms with the mechanisms of the OECD Guidance is still at an early stage. Firms can only overcome these hurdles by implementing the mechanisms and might reduce these hurdles by learning from other firms in the industry.

Supply chain concerns are also prevalent across all industries and firm sizes. On the one hand, large firms raised concerns that their supply chains are simply too complex to ensure full Due Diligence implementation. On the other hand, SMEs raised the point that they did not have sufficient power in the supply chain, and, thus a critical mass would be needed to influence Due Diligence practices of suppliers. One firm even reported that their final customers misused the supply chain information generated based on conflict mineral management they provided to cut out their firm as the middleman. Also, the respondents raised concerns that the nature of the upstream supply chain is simply too dynamic as raw material suppliers are swiftly changed and audits often can’t keep up with the speed of such changes. Finally, focal firms were concerned that they were too far away from the origin and that it is difficult for them to bridge this distance. The raised concerns are in general typical for supply chain initiatives. In the case of 3TG risks, these hurdles could be best addressed by concerted initiatives and supply chain collaboration that can result in the development of a critical mass of compliant suppliers.

A significant number of firms also believed that their internal resources as well as know-how would not suffice to pursue a comprehensive Due Diligence. While these concerns were voiced mainly by SMEs, larger firms pinpointed concerns regarding the difficulty revolving around their company’s internal implementation and communication. These are typical concerns for all new methods that the firms wanted to introduce in either supply chain risk management or sustainability management. These concerns could be overcome only if either the financial attractiveness of OECD Guidance is increased or legal requirements are imposed on firms.

Finally, respondents across all industries mentioned that the OECD Guidance is either too complex as well as too technical or does not provide sufficient guidance, specifically with respect to the ambition level (e.g. what does a good effort of firms for identifying their smelters mean?). Also, in some instances, OECD Guidance terminology was confusing to practitioners who were rather used to common supply chain management terminology. Overall, despite the benefits of the OECD Guidance, several firms felt that the overall solution involving complex assignment of different roles to different parties in the supply chain was not only too technical, but also left loopholes with respect to accountability (for e.g., who is responsible for the identification and solving of issues at the end?).

FIGURE 19: MAJOR HURDLES OF DUE DILIGENCE IMPLEMENTATION



The major enablers that were pointed out by the interviewees can be grouped in four main categories: (1) solution-related, (2) industry collaboration, (3) external support, and (4) internal management.

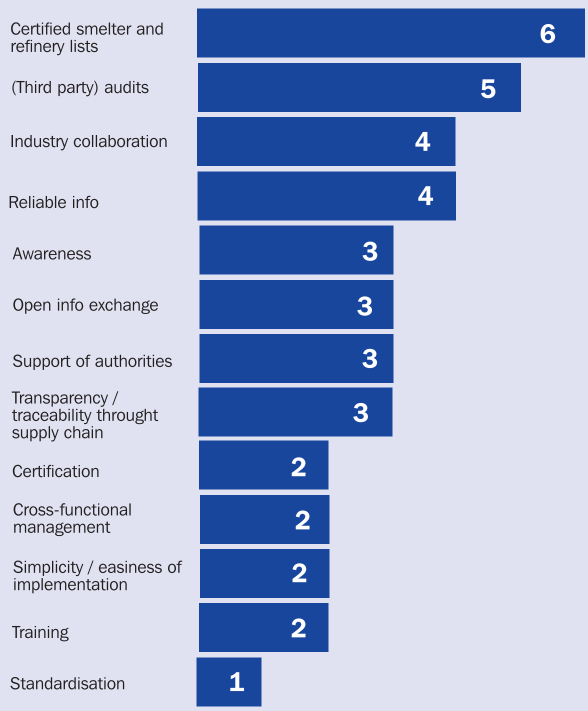
The most important of solution-related enablers centers on the provision of a certified list of conflict-free smelters and refineries. Specifically, the OEMs indicated that the supply chains could be conflict-free only if the origin is managed better with respect to the OECD Guidance. The remaining enablers were more focused on ensuring that reliable Due Diligence data is available (e.g. through rigorous third-party audits or certification schemes). Three respondents even highlighted that a full transparency or traceability system across the entire supply chain would be an important enabler for Due Diligence Implementation.

As per industry collaboration, the role of joint efforts in facilitating audits, sharing information, standardizing certification schemes, influencing suppliers, and sharing costs have been widely recognized as important success factors. Industry collaboration, either directly with supply chain members or through industry associations, seems to play a critical role in making the OECD Guidance a success.

Finally, external support and internal management were also claimed to play a role. For some firms, the support of authorities in the countries of origin, specifically that of regional governments, would be important as only such support could facilitate changes in the concerned regions. Along similar lines, it was also important to have significantly increased awareness across all supply chain members including the end customers as only a combined pressure from various stakeholder could provide the necessary impetus to facilitate change in these regions. Lastly, large firms also pointed out that it would be important to provide adequate in-company training, cross-functional governance within firms and simple solutions so as to successfully implement the OECD Due Diligence initiatives in their context.

Overall, we see that major enablers for a successful OECD Due Diligence lie within the major instruments of the OECD Guidance itself. In other words, the important pillars of success are directly showcased in the OECD Guidance document and therefore “only” need proper implementation. Furthermore, the role of industry collaboration, which is foreseen in the OECD Guidance, also plays a crucial role in the OECD Guidance implementation. While additional enablers such as stakeholder and authority support as well as adequate internal management are also listed, they seem to play a minor role when compared to the main mechanisms of the OECD Guidance.

FIGURE 20: MAJOR ENABLERS OF DUE DILIGENCE IMPLEMENTATION



Reccomendations

The OECD Due Diligence Guidance is a suitable methodology for managing minerals from conflict-affected and high-risk areas and is in line with thorough supply chain risk management practices of firms. Even though this methodology is not yet widely implemented, firms expect significant improvements in not only the image domain, but also with respect to supply chain rationalization. However, the costs firms would incur for a full implementation of the OECD Due Diligence are rather low, except for some SMEs. The following advice can be given based on the study results.

TO PUBLIC AUTHORITIES

Even though the marginal costs to implement OECD Due Diligence are small and benefits such as reputation improvement are achievable, most firms will only implement Due Diligence practices when they either face a directly quantifiable short-term benefit or when they are forced by law to implement these practices. This is particularly true for SMEs as well as firms that face insignificant public scrutiny due to their industry membership or supply chain position. While proactive actors who fully commit to voluntary standards always exist, they seem to benefit only to a certain extent. Based on the minimal investments necessary for OECD Due Diligence implementation – also in comparison to the Dodd Frank legislation – a viable option for supply chain due diligence exists. Even though the current methodology potentially needs further simplification, only legal requirements for compliance can change company behavior in a broader scale. Exceptions do exist in cases where industry consortia jointly change the industry landscape (e.g., the electronics industry). These initiatives could also be further enabled through a mandatory OECD Due Diligence standard.

TO ASSOCIATIONS

The OECD Due Diligence Guidance foresees supply chain collaboration as a major lever to achieve a fully operating due diligence system. Yet, only a limited number of industries pursue industry-wide initiatives to facilitate the implementation of supply chain due diligence. The results of this study clearly indicate that the effect of this collaboration could be significant, especially as costs for individual players can be significantly reduced through industry-wide collaboration. This also specifically enables SMEs to pursue OECD due diligence; otherwise, these firms might be confronted with prohibitive costs for implementation and might not have the chance to build up the required know-how in-house.

TO SMES

Since customer hold large firms responsible, the public pressure for smaller firms to manage 3TG risks is lower than that for large firms. However, this study shows that a significant number of SMEs are already strongly confronted with customers that require due diligence information, specifically metal traders, refineries and smelters. Some SMEs indicated that they might loose significant amount of their business if 3TG risks materialize and they are left uncovered in their supply chain.

Typically, SMEs are less receptive to introduce new management methods. This is acceptable as SMEs not only have lesser resources to try out new management fashion, but also have less financial buffers in case the management method does not provide the intended benefit. Therefore SMEs should use the opportunity to liaise through industry associations so as to benefit from the knowledge of more experienced firms as well as the increased power of industrial consortia. Within the scope of our study, it seems to be important that SMEs focus on finding a lean, yet compliant, way of implementing the OECD Guidance requirements. Again, joint initiatives such as the i-point system might help in this regard.

[10] See Hendricks, K. B., & Singhal, V. R. (2005). An Empirical Analysis of the Effect of Supply Chain Disruptions on Long-Run Stock Price Performance and Equity Risk of the Firm. Production and Operations Management, 14(1), 35-52.

TO LARGE AND VERY LARGE FIRMS

As mentioned before, large as well as very large firms are more often impacted by public scrutiny than smaller firms. Also, it is foreseeable that the requirements regarding supply chain transparency and socially responsible acting will only increase. Supply chain risks constitute a major impediment for firms as it not only destroys shareholder value, but also impact the return on invest of firms across industries.[10]

OECD Due Diligence is a viable option in order to be compliant with standards set out by the Dodd Frank legislation which concerns an increasing number of firms. Furthermore, it provides sufficient flexibility and is causing a lower cost burden on firms than the Dodd Frank legislation itself. However, the potential of collaboration in finding effective ways of implementing due diligence jointly has not been exploited yet. This requires specific broad attention of large firms with respect to these initiatives as only concerted efforts will drive out the risks of 3TG misuse.

Specifically, large and very large firms should reconsider the implementation of their due diligence practices as only a small number of firms implements OECD Due Diligence consistently. Most firms implement patchy processes that can't achieve the intended result. Firms must not focus only on the easily implemented process steps; instead, they have to excel across all steps of the OECD Guidance. Only then, they can reap the benefits of the OECD Guidance as customers will become more aware of the actual level of due diligence implementation through increased transparency and increased activity levels of non-governmental organizations.

DISCLAIMER

The study targeted firms based on a well-selected population of representative firms, yet the findings can only give a first impression of typical cases across industries in Europe. The study investigated a qualitative, small sample and the quantitative data needs thorough backing by representative surveys with large samples in order to complement the current findings. Nevertheless, this study provides powerful advice to industry leaders, politicians, NGOs etc. and aims to facilitate the further adoption of the OECD Guidance.

Appendix

DEMOGRAPHICS OF RESEARCH PARTICIPANTS

NR	INDUSTRY	SC POSITION	HQ COUNTRY	EMPLOYEES	ANNUAL SALES IN MN EUR
1	Aerospace & Defence	OEM	Germany	>1,000	>1,000
2	Manufacturing	Component Manufacturer	Austria	>10,000	>1,000
3	Electronics	OEM	Netherlands	>100,000	>1,000
4	Electronics	OEM	Germany	>10,000	>100,000
5	Automotive	Component Manufacturer	Germany	>10,000	>1000
6	Aerospace & Defence	OEM	Netherlands	<1,000	>100
7	Electronics	OEM	France	>50,000	>10,000
8	Automotive	Metal Trader	Belgium	<1,000	<100
9	Aerospace & Defence	Metal Trader	Belgium	<1,000	<100
10	Aerospace & Defence	Component Manufacturer	Sweden	>10,000	>1,000
11	Manufacturing	Component Manufacturer	Austria	>10,000	>1,000
12	Automotive	Component Manufacturer	Germany	>100,000	>25,000
13	Manufacturing	Metal Trader	Germany	<1,000	<100
14	Jewellery	Retailer	UK	>10,000	>10,000
15	Manufacturing	OEM	Netherlands	>10,000	>10,000
16	Automotive	OEM	France	>100,000	>25,000
17	Electronics	Component Manufacturer	France	>1,000	<100
18	Electronics	Component Manufacturer	France	>1,000	<100
19	Manufacturer	OEM	Finland	<1,000	<100
20	Jewellery	Retailer	UK	<1,000	<100
21	Metals	Smelter	Germany	<1,000	<100
22	Electronics	Metal Trader	UK	<1,000	<100
23	Aerospace & Defence	OEM	Germany	>100,000	>25,000
24	Jewellery	Metal Trader	Austria	<1,000	<100
25	Automotive	OEM	UK	>25,000	>10,000
26	Jewellery	Manufacturer	Germany	<1,000	<100
27	Automotive	OEM	France	>100,000	>25,000
28	Metals	Refinery	Belgium	>10,000	>10,000
29	Aerospace & Defence	Component Manufacturer	UK	<1,000	<100

Definitions

3TG:

3TG refers to the metals tin (casserite), tungsten (wolframite), tantalite (coltan), and gold (gold ore). Under Dodd Frank legislation these metals are called "conflict minerals".

GLOBAL E-SUSTAINABILITY INITIATIVE (GESI):

GeSi is an initiative dedicated to bringing together telecommunication service providers, manufacturers, industry associations and non-governmental organizations so as to impact the sustainability of information and communication technologies.

CONFLICT-FREE SOURCING INITIATIVE (CFSI):

This is a joint initiative of GeSI and EICC to not only provide 150 members with access to Reasonable Country of Origin data and lists of conflict-free smelters, but also to develop new tools such as a conflict mineral reporting template.

ELECTRONIC INDUSTRY CITIZENSHIP COALITION (EICC):

This coalition comprises of world's leading electronics companies working together to improve efficiency and social, ethical, and environmental responsibility in the global supply chain through the use of a standardized code of conduct. EICC provides tools to audit compliance with the code, and helps companies report progress. The EICC includes over 90 global companies.

ITRI TIN SUPPLY CHAIN INITIATIVE (ITSCI):

ITRi is an association representing the tin industry. iTSCi is an initiative helping upstream companies (from mine to the smelter) to implement the OECD Due Diligence Guidance at a practical level.

SMALL AND MEDIUM SIZED ENTERPRISE (SME):

In this study, firms up to 100 million Euros were classified as small and medium sized.

ORIGINAL EQUIPMENT MANUFACTURER (OEM):

OEM refers to the company that originally manufactured the product. In this study, this classification is used to also mark firms that are the focal firms in a supply chain and are therefore responsible for directly handling business with the end-consumer.